Notice of Allowability	Application No. 10/804,266	Applicant(s) KONDO ET AL.	
	Examiner Pankaj Kumar	Art Unit 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *2/24/2006*..

2. ☒ The allowed claim(s) is/are *18-22,24-30 and 32-34*.

3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☒ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☒ Certified copies of the priority documents have been received in Application No. *09/434,788* .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview and emails with Bill Frommer on 5/9/2006-5/10/2006.

The application has been amended as follows:

In the claims:

Claim 18. (currently amended) A data processing apparatus for processing input data ~~and outputting the~~ to create processed data for outputting, comprising:

a data processor ~~configured to process~~ for processing the input data by ~~a~~ predetermined processing ~~method~~ and ~~output~~ outputting the processed data as output data;

an input data evaluator configured to evaluate the input data and calculate a reliability of the input data;

an output data evaluator configured to evaluate the output data and calculate a reliability of the output data, and

a real time learning portion consisting of a single component configured to learn the processing ~~method~~ of the data processor in real time using the reliability of the input data calculated by said input data evaluator and the reliability of the output data

calculated by said output data evaluator to create learned processing and control the data processor to process the input data according to the learned processing ~~method~~.

Claim 19. (previously presented) A data processing apparatus according to Claim 18, further comprising an input data storage unit for storing a predetermined number of time-sequentially input data.

Claim 20. (Currently amended) A data processing apparatus according to Claim 19, wherein said input data evaluator calculates a dispersion of the predetermined number of the time-sequentially input data stored by said input data storage unit and evaluates current input data according to the dispersion.

Claim 21. (Currently amended) A data processing apparatus according to Claim 19, wherein said input data evaluator calculates an average of the predetermined number of the time-sequentially input data stored by said input data storage unit, and evaluates current input data according to an error of each of the input data against the average.

Claim 22. (Currently amended) A data processing apparatus according to Claim 19, wherein said input data evaluator calculates a dispersion and an average of the predetermined number of the time-sequentially input data stored by said input data storage unit; obtains an error of each input data against the average; and evaluates current input data according to the dispersion and ~~the~~ a respective error.

Claim 24. (previously presented) A data processing apparatus according to Claim 18, further comprising an output data storage unit for storing the output data, wherein said data processor adds previous output data stored by said output data storage unit and current input data to obtain the output data corresponding to the current input data.

Claim 25. (Currently amended) A data processing apparatus according to Claim 24, wherein said real time learning portion learns a predetermined weight coefficient according to the ~~evaluation~~ reliability of the input data and the ~~evaluation~~ reliability of the output data, and

said data processor obtains the output data corresponding to the current input data according to the weight coefficient.

Claim 26. (currently amended) A data processing method for processing input data and ~~outputting the~~ creating processed data for outputting, comprising the steps of:

processing the input data by a predetermined processing method and outputting the processed data as output data;

evaluating the input data and calculating a reliability of the input data;

evaluating the output data and calculating a reliability of the output data, and

learning the step of processing ~~method~~ the input data in real time in a single component using the calculated reliability of the input data ~~calculated in the input data evaluation step~~ and the calculated reliability of the output data ~~calculated in the output data evaluation step~~ to create a learned processing, and the input data is processed ~~in the~~

~~data processing step~~ by the step of processing the input data by the learned processing ~~method~~.

Claim 27. (Currently amended) A data processing method according to Claim 26, further comprising ~~the~~ an input data storing step of storing a predetermined number of time-sequentially input data.

Claim 28. (Currently amended) A data processing method according to claim 27, wherein, in the ~~input data evaluation~~ step of evaluating the input data, a dispersion of the predetermined number of the time-sequentially input data stored in the input data ~~storage~~ storing step is calculated and current input data is evaluated according to the dispersion.

Claim 29. (Currently amended) A data processing method according to Claim 27, wherein, in the ~~input data evaluation~~ step of evaluating the input data, an average of the predetermined number of the time-sequentially input data stored in the input data ~~storage~~ storing step is calculated, and current input data is evaluated according to an error of each input data against the average.

Claim 30. (Currently amended) A data processing method according to Claim 27, wherein, in the ~~input data evaluation~~ step of evaluating the input data, a dispersion and an average of the predetermined number of the input data stored in the input data ~~storage~~ storing

step are calculated; an error of each input data against the average is obtained; and current input data is evaluated according to the dispersion and ~~the~~ a respective error.

Claim 32. (Currently amended) A data processing method according to Claim 26, further comprising ~~the~~ an output data storing step of storing the output data, wherein, in the ~~data processing~~ step of processing the input data, previous output data stored in the output data ~~storage~~ storing step and current input data are added to obtain the output data corresponding to the current input data.

Claim 33. (Currently amended) A data processing method according to Claim 32, wherein a predetermined weight coefficient is learned according to the ~~evaluation~~ reliability of the input data and the ~~evaluation~~ reliability of the output data in the ~~real-time~~ step of learning ~~step~~, and

the output data corresponding to the current input data is obtained according to the weight coefficient in the ~~data processing~~ step of processing the input data.

Claim 34. (currently amended) A storage medium storing a computer-controllable program for processing input data and ~~outputting the~~ creating processed data for outputting, the program comprising the steps of:

processing the input data by ~~a~~ predetermined processing ~~method~~ and outputting the processed data as output data;

evaluating the input data and calculating a reliability of the input data;

evaluating the output data and calculating a reliability of the output data, and

learning the step of processing ~~method~~ the input data in real time in a single component using the calculated reliability of the input data ~~calculated in the input data evaluation step~~ and the calculated reliability of the output data ~~calculated in the output data evaluation step~~ to create a learned processing, and the input data is processed ~~in the data processing step~~ by the step of processing the input data by the learned processing ~~method~~.

Remarks:

The above amendments have been made for clarity.

Allowable Subject Matter

2. The following is an examiner's statement of reasons for allowance: The art of record does not suggest the respective claim combinations together and nor would the respective claim combinations be obvious with:

3. As per claims 18-22, 24, 25: a real time learning portion consisting of a single component configured to learn the processing of the data processor in real time using the reliability of the input data calculated by said input data evaluator and the reliability of the output data calculated by said output data evaluator to create learned processing and control the data processor to process the input data according to the learned processing.

4. As per claims 26-30, 32-34: learning the step of processing the input data in real time in a single component using the calculated reliability of the input data and the calculated reliability of

the output data to create a learned processing, and the input data is processed by the step of processing the input data by the learned processing.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pankaj Kumar whose telephone number is (571) 272-3011. The examiner can normally be reached on Mon, Tues, Thurs and Fri after 8AM to after 6:30PM.

7. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Pankaj Kumar
Patent Examiner
Art Unit 2611

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